

Kyrle Probus Club's Speakers' Secretary, Nick Oldfield, gave members a very detailed description of his cruise visits to Norway, which started with a celebration of his 30th wedding anniversary.

And he revealed at the meeting on Thursday 15 March that the town of Kiruna, with its population of 18,000 people, is being completely relocated a distance of some two miles - to avoid the risk of falling into a giant sinkhole! Historic buildings are being moved on trucks at a total cost of \$1 billion.

Back in 1890, Norway had a poor road system and a rail network limited to the Trunk line, from Oslo to Eidsvold. The only form of transport was ferries, and that was very limited. Consequently, the government required a reliable ferry service, to improve communications along Norway's long jagged coastline, a service which had to include Trondheim. At the time, however the lack of navigational aids that would enable night travel prevented any service to Trondheim. Hurtigruten, a company founded by Richard With in 1893 overcame this problem with dead reckoning navigational aids, so he was the only bidder and the company won an initial 3 year contract. Other companies followed suit and the ferry service expanded. By the late 1960's, basic cabins were needed for up to 500 passengers. The ferry fleet now runs 11 boats daily visiting 34 ports. Hurtigruten have developed Explorer boats with luxury cabins visiting very cold ports in Greenland, Iceland, Alaska and Antarctica.

The first railway in Norway, developed by Robert Stephenson, was opened in 1854, carrying lumber from Mjosa to Oslo. As part of Festung Norwegen, the defence and fortification system developed by German occupation forces, major railway construction occurred during WWII.

Bergen is a city founded in 1070, on the southwest coast, and it's old wharf, called bryggen with brightly coloured wooden houses became the hub of the Hanseatic league, a commercial federation of merchant guilds and market towns formed in 1100's dominating Baltic maritime trade for three centuries, combating piracy. Trading offices were established in 4 cities, Bergen, Bruges, London and Lubeck.

Trondheim, in central Norway, was the first capital of Norway, and was the main Christian centre in Norway with a spectacular Cathedral.

Lofoten Islands have for more than 1000 years a major centre of great cod industries, especially in winter when fish migrate south from the Barents Sea and gather in Lofoten to spawn. The picturesque harbour of Solvaer, the largest town in Lofoten, preserves age-old fishing traditions. Stockfish is unsalted fish, typically cod, dried by cold air and wind on large wooden racks for 3-4 months on the foreshore. Dried fish has a storage life of several years. 2 million tons of dried fish are caught each year, exported mainly to Italy and West Africa.

The E10 is the main road west to east across the Lofoten Archipelago, starting at A and ending in Lulea in Sweden, 850km in length. Narvik in nordland, located inside the arctic circle, was developed as an all-year ice free port for the Swedish kiruna and gallivare iron ore mines. Obtaining iron ore from Kiruna originally had one significant problem because there was no suitable Swedish sea port. Lulea, the nearest sea port was covered with ice all winter, and it allows only medium sized freight carriers. Narvik is ice

free due to the warm Gulf Stream, and allows boats of any size to anchor. The Iron ore rail line completed in 1902, linked to the Ofoten line, enabled the iron ore mining company to transport most of the 25 million tonnes per year of ore from Kiruna to Narvik by rail. Axle loads have been upgraded to 30 tonnes, so that the ore locomotives can haul 68 trucks at 40mph, a load of 8,600 tonnes, with 10 trains per day.